(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 23 June 2005 (23.06.2005)

PCT

(10) International Publication Number WO 2005/057728 A1

(51) International Patent Classification⁷: H01Q 23/00,

(21) International Application Number:

PCT/NL2004/000860

(22) International Filing Date:

10 December 2004 (10.12.2004)

(25) Filing Language:

Dutch

(26) Publication Language:

English

(30) Priority Data: 1025002

12 December 2003 (12.12.2003) NI

(71) Applicant (for all designated States except US): STICHT-ING NOBLE HOUSE [NL/NL]; Heereweg 21, NL-2161 AC Lisse (NL).

(72) Inventor; and

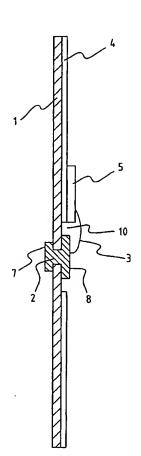
(75) Inventor/Applicant (for US only): DIJKSTRA, Patrick,

Walter, Joseph [NL/NL]; Elzenlaan 4, NL-3465 TJ Driebruggen (NL).

- (74) Agent: HOORWEG, Petrus, Nicolaas; Arnold & Siedsma, Sweelinckplein 1, NL-2517 GK The Hague (NL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: COUPLING FOR PATCH ANTENNAS



(57) Abstract: Device comprising a patch antenna, and coupling means for connecting the antenna to an electronic component, wherein the patch antenna is arranged on one side of an antenna plate, and the electronic component can be mounted on the other side of the antenna plate, wherein the coupling means comprise a metal passage through the antenna plate. This passage thus ensures the transmission of signals between the antenna and the electronic component. passage is mechanically very robust and not susceptible to ageing, whereby this passage is suitable for automotive applications. This passage is generally not ideal, since it does not have the same characteristic impedance as the antenna and the electronic component, but the dimensions of the passage can be kept sufficiently small so that no disruption is encountered from this impedance mismatch.



WO 2005/057728 A1



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.